

I-40 Concrete Rehab Project

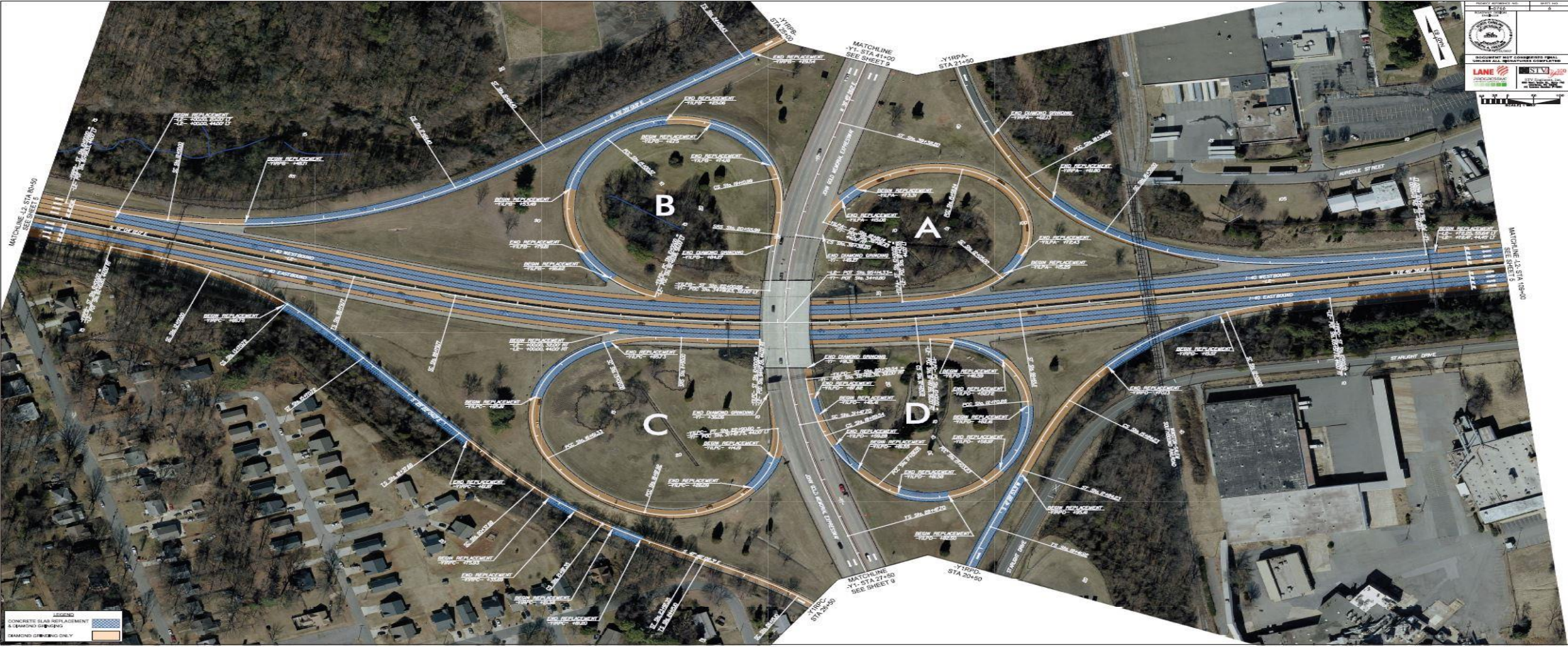
Jordan Scott – Resident Engineer



David Chaparro - Lane Construction



Project Overview



Project Overview

- Express Design Build
- 37,000 SY (5.25 Lane Miles) of Concrete Pavement Replacement
- 94,500 SY of Diamond Grinding
- Project Availability
 - Weeknights 7 PM to 5 AM
 - Weekends w/o local events (Football games, Bowan Gray Races, Fair)





Project Challenges

- ICT time restrictions
 - Bowman Gray Races
 - Wake Forest Football Games
 - Winston Salem State Football Games
 - Dixie Fair Classic
- Coordinating with surrounding DOT projects
 - BUS 40
 - Salem Creek Parkway
 - U-2579B Northern Beltway
 - DOT Maintenance
- High volume and high speed traffic on both I-40 and US 52
- Limited work spaces
- Night Work

Contractor Challenges

- Traffic control conflicts within project
- Dynamic work schedules
- Reduced window for slab replacement
- Personnel issues with marathon weekends
- Challenges with “Hot” concrete mixes
- Unforeseen sight conditions

Overcoming Challenges

- ICT Waivers “Give-Give”
 - Revisited ICT’s to ensure they make sense
 - Scheduled work during lower volume times
 - Optimized production per day
 - Reduced Risk, accomplished more work during the weekend
- Dynamic work schedule notification process
- Able to extend scope of work without extending completion date
- Cost-effective prices for supplemental work

Traffic Control Aids

- Remote STOC message boards
- Sequential flashing warning lights
- Work Zone Presence Lighting
- Additional mobile message boards
- Overhead Message boards
- Work zone “Performance” temporary pavement markings
- Law Enforcement





Typical Ramp/Loop Removal





Volumetric Placement



Ready Mix Placement















Communication

- TMC
- STOC
- Maintenance
- Traffic Services
- IMAP
- Information Officers
- Division 7
- Design Build Unit
- Pavement Management
- Work Zone Safety
- M&T
- Area Engineers
- ECOM
- SHP and Hawks
- CEI Firms
- Surrounding Businesses
- Media
- Contractor
- City of Winston Salem
- Railroad